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by means of the finger-key at the other, to move through a space not probably exceeding the $\frac{1}{200}$ part of an inch, and as the contact of the armature and magnet gives a distinct sound, which can be easily compared with the second-beats of the transit-clock, we cannot but think this method susceptible of greater accuracy than that which depends on watching the movements of a needle. Still greater accuracy could have been obtained had we been supplied with Bond's self-registering apparatus."

The following is an extract of a letter, dated April 23, 1855, received from George Hamilton, Esq. F.R.A.S., Egremont, near Liverpool, in reference to Mr. Elliott's invention of a Mechanical Imitation of Precession, alluded to in the last number of the *Monthly Notices:*—

"In the year 1842, Mr. Edward Davis, optician, then of Liverpool, now, I believe, of Shrewsbury, constructed for me an apparatus precisely the same in principle as Atkinson's, and precisely the same in form as Elliot's. I have used the apparatus since that time to illustrate precession of the equinox and nutation of the earth's axis. My apparatus was made after a model shown to me by Mr. Elliot, and, judging from the appearance of his apparatus, I should conclude that it had been constructed many years before."

Elements of Leucothea. By M. Bruhns.

Epoch, 1855. May 0·0, M.T. Berlin.

$$\begin{array}{rcl}
\mathrm{M} & = & 351^\circ\ 16'\ 22''\cdot7 \\
\pi & = & 212\ \ 55\ \ 38\cdot7 \\
\Omega & = & 355\ \ 42\ \ 15\cdot2 \\
i & = & 7\ \ 37\ \ 35\cdot9 \\
\varphi & = & 14\ \ 17\ \ 36\cdot9 \\
\mu & = & 694''\cdot479 \\
\log a & = & 0\cdot472232
\end{array}
\left.\begin{array}{l} \\ \\ \\ \end{array}\right\}\text{ at rows } \pi,\Omega$$

These elements were calculated from an observation made at Bilk, dated April 20; and two Berlin observations of April 27 and May 3.

Note relative to a Phenomenon seen in the Planet Venus.

By the Rev. W. R. Dawes.

"In the *Monthly Notices* for March 1854, there is a notice of some observations of the planet *Venus*, when near her inferior conjunction, by Mr. Guthrie. The phenomenon he observed is

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very interesting; and it seems desirable that some more definite statement should be furnished by Mr. Guthrie respecting the observations, giving the exact *date*, the approximate *altitude* of the planet, or the *time* of observation from which the altitude and the degree of twilight might be computed.

"It is to be regretted that a notice of the observations was not published at the time, as it might have led to a repetition of them by other observers on subsequent opportunities.

"I confess that I have frequently examined *Venus* near her inferior conjunction, with the view of ascertaining if any such phenomenon were visible, as her apparently dense atmosphere might seem to render probable, but have never caught sight of anything which could be supposed to arise from that cause, except a very moderate elongation of the extremities of the crescent.

"*Wateringbury, April* 30, 1855."

[At the time when Mr. Guthrie's Note was communicated to the Society the Editor endeavoured to obtain some precise details respecting the phenomenon to which it refers, but it was found that Mr. Guthrie did not possess any written record of his observations. He merely remembered that they were made on the occasion of the inferior conjunction of the planet in December 1842. This was not, indeed, explicitly stated by him, but was inferred from the terms of his letter.]

Extract from a Paper by Eyre B. Powell, Esq. on the Orbit of α Centauri.[*] (See *Monthly Notices* for January last, p. 87.)

"I have seen no other orbit of *α Centauri* than the one calculated by Captain Jacob, and appended to the Poonah Catalogue of Double Stars: between his and the present there is a great resemblance as to all the elements, save γ, ☊, and a, but in these we differ *in toto*. A table of variations, which I computed, explains our discrepancies: in the angles of position, like variations of γ and ☊, produce opposite changes, such that, from 1826 to 1848, a decrease of the inclination can be to a very great extent compensated by a retrogradation of the line of nodes; in the distances also there is a similar adjustability among different elements, the variations of a, γ, and ☊, playing the most prominent parts. The evident proximity of the primary star to the following side of the projected ellipse, and the necessary area of the perspective orbit, seem to mark that the line of nodes must lie nearly in the meridian, and if so, γ must possess a large value. With my second set of elements the area of the projected ellipse

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[*] These remarks would have been inserted in the *Monthly Notices* for April, along with those of Captain Jacob on the same subject, had not the Paper which contained them been at the time in the hands of the printer for publication in the volume of Memoirs.—Ed.

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